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## *The Association of Sleep Quality with Dietary Intake and Rate of General and Central Obesity among Young Female Students in Qazvin City, Iran*

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### ABSTRACT

**Background:** Insufficient sleep duration and unhealthy diet are associated with weight gain. However, little is known about the association of sleep quality with dietary intake and obesity. The aim of the present study was to compare dietary intake and anthropometric indices between good and poor sleepers. **Methods:** In this cross-sectional study, a total of 260 females youth aged 18-30 years were recruited among the students of Qazvin University of Medical Sciences. The evaluated variables consisted of sleep quality, dietary intake, and anthropometric indices. Statistical analysis was performed using SPSS version 21.0. **Results:** Participants in the poor quality sleep group had higher intakes of calorie ( $P < 0.001$ ) and carbohydrate ( $P < 0.001$ ), and lower protein intake ( $P < 0.01$ ) in comparison with good sleepers. Regarding food groups, poor sleepers had higher intake of bread-grains ( $P = 0.02$ ) group, but lower intake of meat-alternatives ( $P < 0.001$ ), vegetables ( $P < 0.001$ ), and fruits ( $P < 0.001$ ) in comparison with the good sleepers. Participants in the poor quality sleep group had higher weight ( $P < 0.001$ ), body mass index ( $P < 0.001$ ), waist circumference ( $P < 0.001$ ), and fat mass ( $P < 0.001$ ) in comparison with good sleepers. **Conclusion:** Our findings emphasize the relationship of poor quality sleep with unhealthy dietary intake and obesity in young female women.

**Keywords:** Sleep quality; Dietary intake; Body weight; Central obesity; Young female

### Introduction

Obesity, a major public health problem worldwide, is sometimes a true epidemic (Katagiri *et al.*, 2014). The high morbidity related to obesity highlights the importance of recognizing various factors that may increase its high

prevalence in the population. Expressed phenotype of obesity is affected by non-genetic determinants including environmental and behavioral factors (Bouchard, 2007, Friedman, 2004, Hill *et al.*, 2003). Physical activity and dietary patterns have obtained much attention as effective factors of obesity over

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